

### Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

### Listing of Claims:

1. (Currently Amended) A method, in a data processing system, of distributing traffic to application instances on one or more computing devices, comprising:

obtaining application instance specific operational information identifying operational characteristics of an application instance on a computing device of the one or more computing devices, wherein the application instance specific operational information includes at least one of a number of successful transactions processed by the application instance within a period of time, an application instance topology, an importance of transactions currently being processed by the application instance, an amount of time the application instance has been blocked waiting for resources, and an amount of resources consumed by the application instance;

generating a load balancing weight to be associated with the application instance based on the application instance specific ~~operation~~ operational information obtained; and

distributing the traffic to the application instance based on the ~~generated~~ load balancing weight.

2. (Currently Amended) The method of claim 1, wherein obtaining the application instance specific operational information includes:

retrieving the application instance specific operational information from the application instance using an agent application ~~resident~~ residing on the computing device.

3. (Currently Amended) The method of claim 2, wherein the application instance is instrumented to include code for communicating with the agent application and sending the application instance specific operational information to the agent application from the application instance.

4. (Currently Amended) The method of claim 1, wherein generating ~~[[a]]~~ the load balancing weight to be associated with the application instance includes:

comparing the application instance specific operational information to one or more other application instance specific information for one or more other application instances; and

generating ~~[[a]]~~ the load balancing weight based on a relationship between the application instance specific operational information and the one or more other application instance specific information.

5. (Currently Amended) The method of claim 4, wherein the relationship is a relative difference between the application instance specific operational information and the one or more other application instance specific information.

6. (Currently Amended) The method of claim 4, wherein generating ~~[[a]]~~ the load balancing weight based on a relationship between the application instance specific operational information and the one or more other application instance specific information includes:

attributing weight points to ~~[[each]]~~ the application instance ~~of the application instances~~ and the one or more other application instances based on a relative difference between the application instance specific operational information ~~associated with the application instance~~ and the one or more other application instance specific information ~~associated with the one or more other application instances~~.

7. (Cancelled)

8. (Currently Amended) The method of claim 2, wherein retrieving the application instance specific operational information from the agent application is performed periodically.

9. (Original) The method of claim 1, wherein the method is implemented in a weight management system that is separate from the computing devices and from a load balancing device.

10. (Currently Amended) The method of claim 4, wherein generating ~~[[a]]~~ the load balancing weight based on ~~[[a]]~~ the relationship between the application instance specific operational information and the one of more other application instance specific information includes:

assigning a base weight to each of the application instance and the one or more other application instances; and

increasing a weight value associated with the application instance or the one or more other application instances based on one or more of the following:

which ~~of the~~ application instance ~~and the one or more other application instances~~ has a relatively higher transaction success rate;

which ~~of the~~ application instance ~~and the one or more other application instances~~ has a relatively better response time;

which ~~of the~~ application instance ~~and the one or more other application instances~~ operates on an underutilized system;

which of the application instance and the one or more other application instances has a relatively better response time and operates on an underutilized system;

which of the application instance and the one or more other application instances processes the least significant transactions; and

which of the application instance and the one or more other application instances passes transactions on to higher performing computing systems.

11. (Currently Amended) A computer program product in a ~~computer-readable~~ recordable-type medium for distributing traffic to application instances on one or more computing devices, comprising:

first instructions for obtaining application instance specific operational information identifying operational characteristics of an application instance on a computing device of the one or more computing devices, wherein the application instance specific operational information includes at least one of a number of successful transactions processed by the application instance within a period of time, an application instance topology, an importance of transactions currently being processed by the application instance, an amount of time the application instance has been blocked waiting for resources, and an amount of resources consumed by the application instance;

second instructions for generating a load balancing weight to be associated with the application instance based on the application instance specific ~~operation~~ operational information obtained; and

third instructions for distributing the traffic to the application instance based on the generated load balancing weight.

12. (Currently Amended) The computer program product of claim 11, wherein the first instructions for obtaining the application instance specific operational information include:

instructions for retrieving the application instance specific operational information from the application instance using an agent application ~~resident~~ residing on the computing device.

13. (Currently Amended) The computer program product of claim 12, wherein the application instance is instrumented to include code for communicating with the agent application and sending the application instance specific operational information to the agent application from the application instance.

14. (Currently Amended) The computer program product of claim 11, wherein the second instructions for generating ~~[[a]]~~ the load balancing weight to be associated with the application instance include:

fourth instructions for comparing the application instance specific operational information to one or more other application instance specific information for one or more other application instances; and

fifth instructions for generating a load balancing weight based on a relationship between the application instance specific operational information and the one or more other application instance specific information.

15. (Currently Amended) The computer program product of claim 14, wherein the relationship is a relative difference between the application instance specific operational information and the one or more other application instance specific information.

16. (Currently Amended) The computer program product of claim 14, wherein the instructions for generating a load balancing weight based on a relationship between the application instance specific operational information and the one or more specific information include:

instructions for attributing weight points to each ~~application instance~~ of the application instance and the one or more other application instances based on a relative difference between the application instance specific operational information associated with the application instance and the one or more other application instance specific information associated with the one or more other application instances.

17. (Cancelled)

18. (Original) The computer program product of claim 12, wherein the instructions for retrieving the application instance specific operational information from the agent application is performed periodically.

19. (Currently Amended) The computer program product of claim 14, wherein the instructions for generating a load balancing weight based on ~~[[a]]~~ the relationship between the application instance specific operational information and the one or more other application instance specific information include:

instructions for assigning a base weight to each of the application instance and the one or more other application instances; and

instructions for increasing a weight value associated with the application instance or ~~[[an]]~~ the one or more other application ~~instance~~ instances based on one or more of the following:

which ~~of~~ the application instance and the one or more other application instances has a relatively higher transaction success rate;

which of the application instance and the one or more other application instances has a relatively better response time;

which of the application instance and the one or more other application instances operates on an underutilized system;

which of the application instance and the one or more other application instances has a relatively better response time and operates on an underutilized system;

which of the application instance and the one or more other application instances processes the least significant transactions; and

which of the application instance and the one or more other application instances passes transactions on to higher performing computing systems.

20. (Currently Amended) A system in a recordable-type medium for distributing traffic to application instances on one or more computing devices, comprising:

means for obtaining application instance specific operational information identifying operational characteristics of an application instance on a computing device of the one or more computing devices, wherein the application instance specific operational information includes at least one of a number of successful transactions processed by the application instance within a period of time, an application instance topology, an importance of transactions currently being processed by the application instance, an amount of time the application instance has been blocked waiting for resources, and an amount of resources consumed by the application instance;

means for generating a load balancing weight to be associated with the application instance based on the application instance specific ~~operation~~ operational information obtained; and

means for distributing the traffic to the application instance based on the ~~generated~~ load balancing weight.